CLAIMS

1. A fluid feed system commanded to a fluid flow rate set point by a set point signal, comprising:

a metering pump receiving a control signal directing a cycle rate for the metering pump;

a fluid flow meter connected to measure a fluid flow rate produced by the metering pump and which provided a fluid flow rate signal; and

a metering pump controller responsive to the set point signal and the fluid flow rate signal to adjust the control signal to direct a cycle rate which produces a fluid flow rate equal to the fluid flow rate set point.

2. The fluid feed system of claim 1, wherein the metering pump is a positive displacement pump.

3. The fluid feed system of claim 2, wherein the metering pump controller determines the control signal based on the set point signal and the fluid flow rate signal.

4. The fluid feed system of claim 1, wherein the fluid flow meter is a positive displacement meter.

5. The fluid feed system of claim 4, wherein the positive displacement meter is an oval gear meter.

6. A method of controlling a fluid flow rate, comprising:

displacing an approximately defined quantity of fluid at a rate determined by a control signal;

measuring an actual fluid flow rate; and

adjusting the control signal to produce a rate of displacing the approximately defined quantity of fluid such that the actual fluid flow rate matches a desired fluid flow rate.

7. The method of claim 6, wherein the control signal includes a pulse instructing the displacement of the approximately defined quantity.

8. The method of claim 6, further comprising:

computing an analog pump control signal to achieve a desired flow rate.

9. A chemical processing facility, comprising:

a fluid feedstock;

a metering pump receiving a control signal directing a cycle rate for the metering pump;

a fluid flow meter connected to measure a fluid flow rate produced by the metering pump and which provides a fluid flow rate signal;

a metering pump controller responsive to the set point signal and the fluid flow rate signal to adjust the control signal to direct a cycle rate which produces a fluid flow rate equal to the fluid flow rate set point; and

a process consuming fluid at a rate equal to the fluid flow rate set point.

10. The chemical processing facility of claim 9, wherein the metering pump is a positive displacement pump.

11. The chemical processing facility of claim 10, wherein the metering pump controller determines the control signal based on a remote set point signal and the fluid flow rate signal.

12. The chemical processing facility of claim 9, wherein the fluid flow meter is a positive displacement meter.

13. The chemical processing facility of claim 12, wherein the positive displacement meter is an oval gear meter.

14. A fluid dispenser, comprising:

a fluid feedstock;

a metering pump receiving a control signal directing a cycle rate for the metering pump;

a fluid flow meter connected to measure a fluid flow rate produced by the metering pump and which provides a fluid flow rate signal;

a metering pump controller responsive to the set point signal and the fluid flow rate signal to adjust the control signal to direct a cycle rate which produces a fluid flow rate equal to the fluid flow rate set point; and

a fluid outlet through which the fluid flow produced by the metering pump is communicated.

15. The fluid dispenser of claim 14, wherein the metering pump is a positive displacement pump.

16. The fluid dispenser of claim 15, wherein the metering pump controller determines the control signal based on the set point signal and the fluid flow rate signal.

17. The fluid dispenser of claim 14, wherein the fluid flow meter is a positive displacement meter.

18. The fluid dispenser of claim 17, wherein the positive displacement meter is an oval gear meter.